

1/4

FIG 1

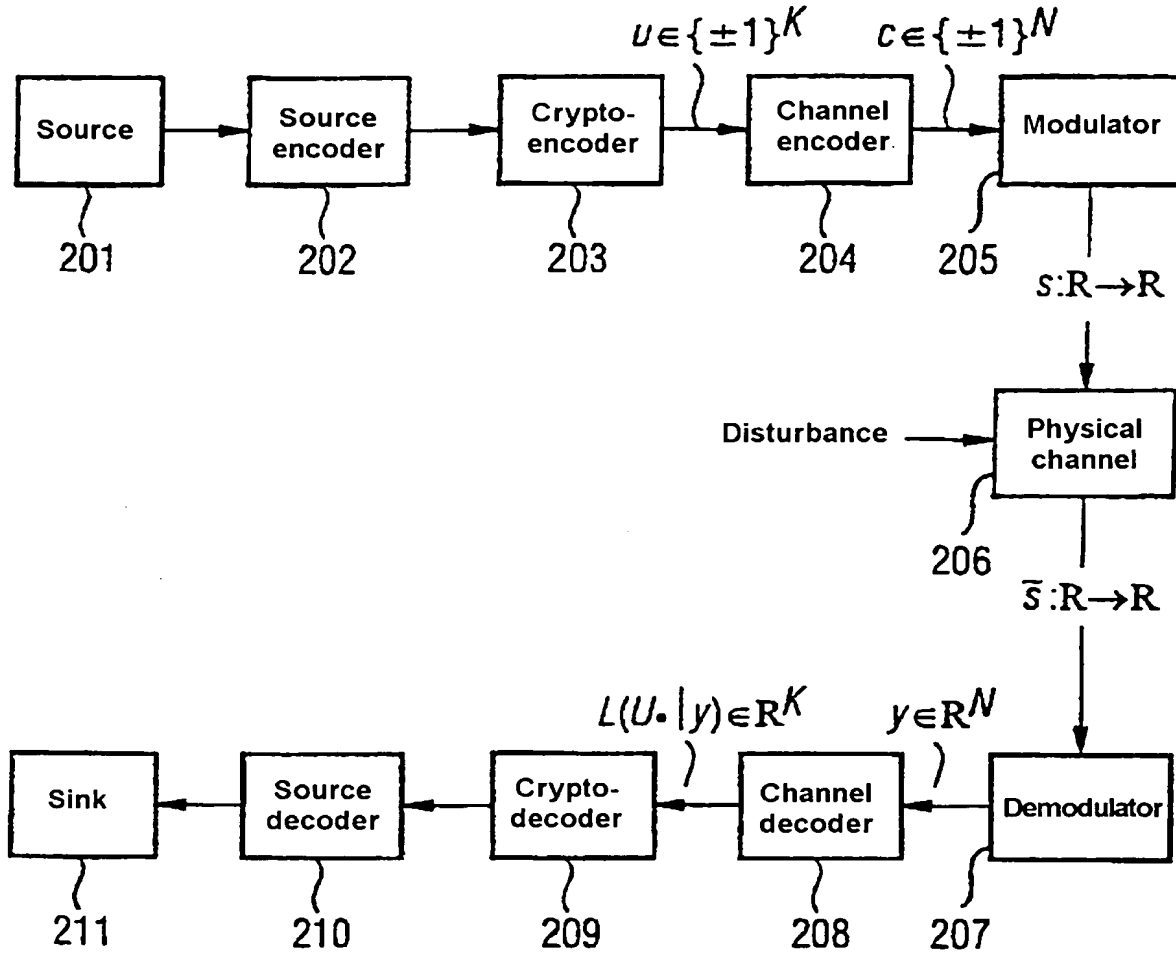


FIG 2

for $q=1, \dots, Q$:

for $s \in S$:

$$\mu(s, q) := \exp\left(\frac{-1}{2\sigma^2} \Delta F_q(s)\right);$$

FIG 3

<u>for $s \in S$:</u>	Pre-allocation
$A(s,0) := 0; B(s,0) := 0;$	
$A(s_0,0) := 1; B(s_0,0) := 1;$	Starting state
<u>for $q = 1, \dots, k$:</u>	Termination
<u>für $s \in S$:</u>	Consideration of all states
$s^+ := T(s, v_0);$	Follow-up state
$B(s,q) := \mu(s, Q-(q-1))B(s^+, q-1);$	Calculation of B
<u>for $q = 1, \dots, a-1$:</u>	Progression in the trellis diagram
<u>für $s \in S$:</u>	Consideration of all states
$A(s,q) := A(\hat{T}(v_0, s), q-1);$	Pre-allocation of A
$B(s, k+q) := B(T(s, v_0), k-1+q);$	Pre-allocation of B
<u>für $v \in V \setminus \{v_0\}$</u>	Consideration of all transitions
$A(s,q) := A(s,q) + A(\hat{T}(v, s), q-1);$	Calculation of A
$B(s, k+q) := B(s, k+q) + B(T(s, v_0), k-1+q);$	Calculation of B
$A(s,q) := \mu(s,q) \cdot A(s,q);$	Calculation of A
$B(s, k+q) := \mu(s, a-q) \cdot B(s, k+q);$	Calculation of B
<u>for $i = 1, \dots, K$:</u>	Progression in the trellis diagram
$A_{+1}^i := 0; A_{-1}^i := 0;$	Pre-allocation
$j = 1 + [(i-1)/b];$	
<u>for $s \in S$:</u>	Consideration of all states
<u>for $v \in V_j^i(+1)$:</u>	Transitions
$A_{+1}^i := A_{+1}^i + A(s, j-1) \cdot B(T(s, v), Q-j+1);$	Update of $A^i + 1$
<u>for $v \in V_j^i(-1)$:</u>	Transitions
$A_{-1}^i := A_{-1}^i + A(s, j-1) \cdot B(T(s, v), Q-j+1);$	Update of $A^i + 1$
$L(U_i y) := \ln(A_{+1}^i / A_{-1}^i);$	i-th soft output

FIG 4

<u>for</u> $s \in S$:	Pre-allocation
$A(s,0) := 0; B(s,0) := 0;$	
$A(s_0,0) := 1; B(s_0,0) := 1;$	Starting state
<u>for</u> $q = 1, \dots, k$:	Termination
<u>for</u> $s \in S$:	Consideration of all states
$s^+ := T(s, +1);$	Follow-up state
$B(s,q) := \mu(s, Q-(q-1))B(s^+, q-1);$	Calculation of B
<u>for</u> $q = 1, \dots, a-1$:	Progression in the trellis diagram
<u>for</u> $s \in S$:	Consideration of all states
$t^+ := \hat{T}(+1, s); t^- := \hat{T}(-1, s);$	Predecessor states
$s^+ := T(s, +1); s^- := T(s, -1);$	Follow-up states
$A(s,q) := \mu(s,q) \cdot (A(t^+, q-1) + A(t^-, q-1));$	Calculation of A
$B(s, k+q) := \mu(s, a-q) \cdot (B(s^+, k-1+q) + B(s^-, k-1+q));$	Calculation of B
<u>for</u> $i = 1, \dots, a$:	Progression in the trellis diagram
$A_{+1}^i := 0; A_{-1}^i := 0;$	Pre-allocation
<u>for</u> $s \in S$:	Consideration of all states
$s^+ := T(s, +1); s^- := T(s, -1);$	Follow-up states
$A_{+1}^i := A_{+1}^{i-1} + A(s, i-1) \cdot B(s^+, Q-i+1);$	Update of $A^i + 1$
$A_{-1}^i := A_{-1}^{i-1} + A(s, i-1) \cdot B(s^-, Q-i+1);$	Update of $A^i + 1$
$L(U_i y) := \ln(A_{+1}^i / A_{-1}^i);$	i-th soft output

FIG 5

